

ABSTRACT

This invention relates to an optical pulse reconstruction from sonogram. According to the present invention, there is provided a method for measuring an optical pulse which comprises: filtering an optical pulse to obtain a frequency-filtered pulse, a transfer or window function for said frequency filtering being given; measuring a sonogram, which is defined as the intensity waveform of said frequency-filtered pulse, to obtain a measured sonogram; and reconstructing said optical pulse by using said measured sonogram and said transfer or window function. The present invention also provides a formula for retrieving the amplitude and phase of an optical pulse from its sonogram. When the transfer function of the frequency filter is known, the pulse amplitude and phase are completely retrieved from the sonogram without iterative calculations by derived formula.

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